

## Notice of Allowability

Application No.

09/406,979

Examiner

Justin P. Misleh

Applicant(s)

BREHMER ET AL.

Art Unit

2622

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After-Final Amendment filed July 10, 2006.
2. ☒ The allowed claim(s) is/are 10, 14 – 20, and 23 – 35 (now renumbered 1 – 3, 7, 5, 4, 6, 8 – 10, 14, 11 – 13, 15 – 17, 19 – 21, and 18, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**VIVEK SRIVASTAVA**  
**PRIMARY EXAMINER**

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 10, 14 – 20, and 23 – 35 (now renumbered 1 – 3, 7, 5, 4, 6, 8 – 10, 14, 11 – 13, 15 – 17, 19 – 21, and 18, respectively) are allowed.

2. The following is an Examiner's statement of reasons for allowance:

The closest prior art teaches, in the very least, an image sensing circuit comprising a plurality of pixels each having a photosensitive element and a differential input pair amplifier circuit, wherein a first input of the amplifier circuit is coupled to the output of the photosensitive element and an output of the amplifier circuit is coupled to an input of a correlated double sampling (CDS) circuit such that a feedback path is formed between the input of the CDS circuit to a second input of the amplifier circuit.

The closest prior art also teaches, in the very least, several different embodiments including a sampling circuit for an image sensing circuit having a photosensitive element, wherein the sampling circuit comprises a feedback loop amplifier circuit having an output from the photosensitive elements as input; and a clamping circuit coupled to receive an output from the feedback loop amplifier circuit and produce an output signal representing a double correlated sample voltage difference at the output, wherein said clamping circuit comprises an auto-zero amplifier circuit with a feedback loop which includes a first capacitive storage element coupled in parallel with a switching element controlled by a clamp signal.

However, the closest prior art does not teach or fairly suggest wherein the CDS circuit is coupled within the amplifier feedback loop, wherein the CDS circuit comprises a sample and hold circuit, such that the output of the sample and hold circuit is fed back to the second input of the differential input pair of the amplifier circuit and the output of the sample and hold circuit is also coupled to an input of a subsequent clamping circuit.

Additionally, the closest prior art does not teach or fairly suggest wherein the amplifier circuit of the clamping circuit has a first input coupled to a reference voltage and a second input coupled by way of a second capacitive element to receive said output from the feedback loop amplifier, and wherein said clamping circuit is controlled by a clamp signal such that in a first state the output of the clamping circuit amplifier is fixed by said reference voltage and in a second state the clamping circuit output changes in accordance with said feedback loop amplifier output from a baseline of the fixed reference voltage output.

3. Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vivek Srivastava can be reached on 571.272.7304. The fax phone number for the organization where this application or proceeding is assigned is 571.273.3000.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
July 20, 2006



**VIVEK SRIVASTAVA**  
**PRIMARY EXAMINER**